

R3000 robustos

Industrial Dual SIM Cellular VPN Router
2 Eth + 1 RS-232 + 1 RS-485 + 1 USB Host





INTRODUCTION

The Robustel Industrial Dual SIM Cellular VPN Router (R3000) is a rugged cellular router offering state-of-the-art mobile connectivity for machine to machine (M2M) applications.

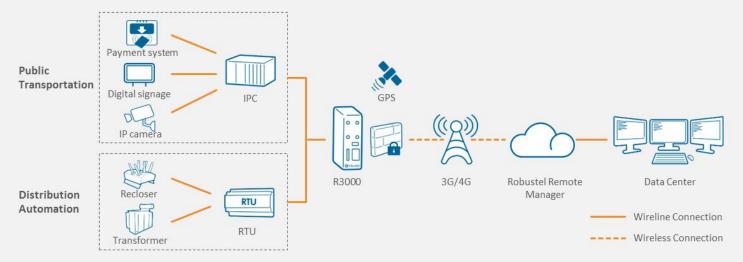
R3000 is a powerful router developed from **RobustOS**, a Robustel self-developed and Linux-based operating system which is designed to be used in Robustel devices. The RobustOS includes basic networking features and protocols providing customers with a very good user experience. Meanwhile, Robustel offers a **Software Development Kit** (SDK) for partners and customers to allow additional customization by using C, Python or Java. It also provides rich **Apps** to meet fragmented IoT market demands.

Robustel is a leading global industrial IoT/M2M hardware and solution provider. Since its establishment in 2010 in Guangzhou, China, Robustel has been focusing on designing and manufacturing industrial cellular routers, gateways, modems, cloud platforms and E2E solutions. In order to support global business in more than 100+ countries and regions, Robustel has set up local offices in Germany, Australia, the Netherlands, the UK, Japan and Hong Kong.

KEY FEATURES

- The feature *Link Manager* supports WWAN1, WWAN2, Ethernet WAN, WLAN WAN link backup and ICMP detection
- The option Backup Mode supports cold, warm and load balancing
- > Supports IPv6
- RobustOS + SDK + App
- IPsec/OpenVPN/GRE/L2TP/PPTP/
 DMVPN
- Management and maintenance via Web/CLI/SNMP/RCMS Cloud
- Robust industrial design (9 to 60V DC, desktop or wall mounting or DIN rail mounting)

APPLICATION EXAMPLE



SPECIFICATIONS

Cellular Interface

Number of antennas 2 (MAIN + AUX) Connector SMA-K SIM 2 (3 V & 1.8 V)

Ethernet Interface

Number of ports 2 x 10/100 Mbps, 2 x LAN or 1 x LAN + 1 x WAN

Magnet isolation

WiFi Interface (Optional) Number of antennas 1

Connector RP-SMA-K

Standards 802.11a/b/g/n, supports AP and Client modes

Frequency bands

Security Open, WPA, WPA2, WEP AES, TKIP, WEP64 Encryption Data speed Up to 150 Mbps

GPS/GLONASS Interface (Optional)

Number of antennas

Connector SMA-K with 50 ohms impedance Tracking sensitivity GPS: greater than -148 dBm

GLONASS: greater than -140 dBm

Horizontal position GPS: 2.5 m GLONASS: 4.0 m accuracy Protocol NMFA-0183 V2.3

Serial Interface

Number of ports 1 x RS-232 + 1 x RS-485

or 2 x RS-232 or 2 x RS-485

Optional hardware is 2 x RS-485 or 2 x RS-232

7-pin 3.5 mm female socket with lock Connector

ESD protection ±15 KV

Baud rate 300bps to 230400bps

DI/DO

Type 2 x DI (dry contact) + 2 x DO (wet contact),

4 x DI, 4 x DO, 3 x DI + 1 x DO or 3 x DO + 1 x DI

7-pin 3.5 mm female socket with lock Connector

Isolation 3KVDC or 2KVrms

Absolute maximum VDC "V+" +5V DC (DI), 30V DC (DO)

Absolute maximum ADC

Others

Reset button 1 x RST

SD 1 x Micro SD interface

Expansion 1 x USB 2.0 host up to 480 Mbps

LED indicators 1 x RUN, 1 x PPP, 1 x USR, 1 x RSSI, 1 x NET, 1 x SIM

Built-in RTC, Watchdog, Timer

Software (Basic features of RobustOS)

PPP, PPPoE, TCP, UDP, DHCP, ICMP, NAT, HTTP. Network protocols

HTTPs, DNS, ARP, NTP, SMTP, Telnet, VLAN,

SSH2, DDNS, etc. IPsec, OpenVPN, GRE

VPN tunnel DMZ, anti-DoS, Filtering (IP/Domain name/ Firewall

MAC address), Port Mapping, Access Control

Management Web, CLI, SMS

Serial port Transparent, DNP3 Transparent, TCP Client/

Server, UDP, Modbus RTU Gateway

App Center (Available Apps for RobustOS)

L2TP, PPTP, DMVPN, VRRP, QoS, SNMP, Apps*

Language, RCMS

*Request on demand. For more Apps please visit www.robustel.com.

Power Supply and Consumption

Connector 3-pin 5 mm female socket with lock

Input voltage 9 to 60V DC Power consumption

Idle: 100 mA@12 V

Data link: 400 mA (peak) @12 V

Physical Characteristics

IP30 Ingress protection Housing & Weight Metal, 570 g

Dimensions 125 x 104 x 43.5 mm

Installations Desktop, wall mounting and 35 mm DIN rail

mounting

Approvals

CE, NBTC, FCC, RCM, PTCRB, GCF, IC, IMDA, Regulatory

EAC, Anatel, UL, CB, ICASA

Carrier AT&T, Rogers, Vodafone

C1D2, E-mark (Vehicle), IEC 61000-4-12 Application

(Electromagnetic Compatibility - Oscillatory

Waves Immunity Test),

Environmental RoHS2.0, WEEE

FMI EN 55032: 2012/AC: 2013 (CE & RE) Class B

EMS IEC 61000-4-2 (ESD) Level 4 IEC 61000-4-3 (RS) Level 4

IEC 61000-4-4 (EFT) Level 4 IEC 61000-4-5 (Surge) Level 3 IEC 61000-4-6 (CS) Level 2 IEC 61000-4-8 (M/S) Level 4

ORDERING INFORMATION

		R3000-NU
HSPA+ Router	LTE Router	Wireline Router
GSM/GPRS/EDGE/HSDPA/	GSM/GPRS/EDGE/WCDMA/HSDPA/HSUPA/HSPA+/DC-HSPA+/	
HSUPA/HSPA+	TD-SCDMA/CDMA (CDMA 1X/EVDO)/FDD LTE/TDD LTE	
Frequency Bands 4G*	Global: B1/B2/B3/B4/B5/B7/B8/B12/B13/B18/B19/B20/B25/B26/	
	B28, B38/B39/B40/B41	
	AU: B1/B2/B3/B4/B5/B7/B8/B28, B40	
	EMEA: B1/B3/B5/B7/B8/B20, B38/B40/B41	
	CN: B1/B3/B5/B8, B38/B39/B40/B41	
3G B1/B2/B4(AWS)/B5/B8/B19	Global: B1/B2/B4/B5/B6/B8/B19, B34/B39	
	AU: B1/B8	
	EMEA: B1/B5/B8	
	CN: B1/B5/B8, B34/B39, BC0	
2G B2/B3/B5/B8	CN/EMEA: B3/B8	
	AU/Global: B2/B3/B5/B8	
-40 to +75 °C	-40 to +75 °C	-40 to +75 °C
-40 to +85 °C	-40 to +85 °C	-40 to +85 °C
5 to 95% RH	5 to 95% RH	5 to 95% RH
	GSM/GPRS/EDGE/HSDPA/ HSUPA/HSPA+ B1/B2/B4(AWS)/B5/B8/B19 B2/B3/B5/B8 -40 to +75 °C -40 to +85 °C	GSM/GPRS/EDGE/HSDPA/ HSUPA/HSPA+ TD-SCDMA/CDMA (CDMA 1X/EVDO)/FDD LTE/TDD LTE Global: B1/B2/B3/B4/B5/B7/B8/B12/B13/B18/B19/B20/B25/B26/B28, B38/B39/B40/B41 AU: B1/B2/B3/B4/B5/B7/B8/B28, B40 EMEA: B1/B3/B5/B7/B8/B20, B38/B40/B41 CN: B1/B3/B5/B7,B8/B20, B38/B40/B41 CN: B1/B3/B5/B8, B38/B39/B40/B41 Global: B1/B2/B4/B5/B6/B8/B19, B34/B39 AU: B1/B8 EMEA: B1/B5/B8 CN: B1/B5/B8, B34/B39, BC0 B2/B3/B5/B8 CN/EMEA: B3/B8 AU/Global: B2/B3/B5/B8 -40 to +75 °C -40 to +85 °C

^{*}For more information about 4G frequency bands in different countries, please contact your Robustel sales representative.

